

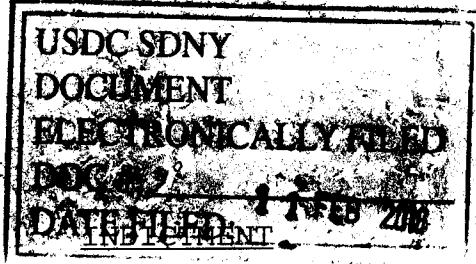
UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA,

- v. -

SERGEY ALEYNIKOV,

Defendant.



: 10 Cr.

10 CRIM 96

COUNT ONE

(Theft of Trade Secrets)

The Grand Jury charges:

Relevant Persons and Entities

1. At all times relevant to this Indictment, Goldman Sachs & Co. ("Goldman") was a company headquartered in New York, New York that provided financial services in the United States and around the world and engaged in other financial activities, including, as detailed below, high-frequency trading on various commodities and equities markets.

2. At all times relevant to this Indictment, Teza Technologies LLC ("Teza") was a company headquartered in Chicago, Illinois that was founded in or about early 2009. Teza's founders sought to develop the technological capability for Teza to engage in high-frequency trading, like Goldman, by the end of 2009.

3. At all times relevant to this Indictment, SERGEY ALEYNIKOV, the defendant, was a computer programmer who resided

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in New Jersey. For approximately two years, ALEYNIKOV was employed by Goldman to develop and maintain some of the computer code used to operate Goldman's high-frequency trading business. In or about June 2009, ALEYNIKOV resigned from Goldman to work for Teza.

Background

A. Goldman's High-Frequency Trading System

4. "High-frequency trading" is a type of trading activity carried out in various financial markets, such as the New York Stock Exchange ("NYSE") and NASDAQ Stock Market ("NASDAQ"), in which orders to buy and sell are placed electronically. Typically, high-frequency trading involves the extremely rapid execution of high volumes of trades in which the decisions to make those trades are determined by sophisticated computer programs that use complex mathematical formulas, known as algorithms, to make the trading decisions. Those algorithms, in turn, make trading decisions based upon statistical analyses of past trades and moment-to-moment developments in the markets, among other things. Various banks and financial institutions in the United States, including Goldman, engage in high-frequency trading on various equities and commodities markets.

5. At all times relevant to this Indictment, Goldman's high-frequency trading was supported by a proprietary system of computer programs (the "Platform"), which, among other

things, rapidly obtained information regarding the latest market movements and trends, processed that information into a form that could be analyzed by Goldman's trading algorithms, and then executed the trading decisions resulting from the algorithms. The rapid speed at which the Platform could perform these tasks conferred a competitive advantage to Goldman with respect to its trades. Goldman's high-frequency trading generated many millions of dollars in profits per year.

6. Goldman acquired portions of the Platform, along with other assets, when it purchased the Hull Trading Company in or about 1999 for approximately \$500 million. Since in or about 1999, Goldman has employed many computer programmers to develop and maintain both the Platform and Goldman's trading algorithms. Goldman has not licensed its trading algorithms or the Platform, and has not otherwise made them available to the public.

7. At all times relevant to this Indictment, Goldman's high-frequency trading system - the Platform and the trading algorithms - were comprised of different computer programs. Computer programmers working for Goldman developed and modified the programs used in the high-frequency trading system by writing and altering the "source code" of those programs. "Source code" refers to a series of programming instructions, in a human-readable format, that specify the actions to be performed by a computer program.

B. Goldman's Protections of Its High-Frequency Trading System

8. At various times relevant to this Indictment, Goldman has taken various measures to protect its high-frequency trading system's source code, including the following, among others:

- a. maintaining a firewall which was designed to prevent outsiders from accessing the information stored on Goldman's computer network;
- b. limiting access to the high-frequency trading system's source code only to Goldman employees who had reason to access that source code, such as the programmers working on the system;
- c. blocking certain transfers of information outside of Goldman's computer network and monitoring some transfers of information by employees outside of Goldman's computer network; and
- d. requiring all Goldman employees to agree to a confidentiality agreement that provided, among other things, that employees were to hold "in strict confidence," all "non-public information and materials," including "information and materials describing or relating to the business and financial affairs," "operating procedures," and "policies and procedures of Goldman Sachs," and which further provided that Goldman employees "irrevocably assign to Goldman Sachs" the rights to "any

invention, discoveries, concepts, ideas or information," developed over the course of employment, and that such work "may not be used for any purposes other than the benefit of Goldman Sachs."

C. ALEYNIKOV's Involvement with Goldman's High-Frequency Trading System

9. From in or about May 2007, up to and including in or about June 2009, SERGEY ALEYNIKOV, the defendant, was employed by Goldman as a Vice President in Goldman's Equities Division. Throughout his employment at Goldman, ALEYNIKOV was a member of a team of computer programmers responsible for developing and improving certain aspects of the Platform related to Goldman's high-frequency trading on equities markets. For example, during his employment at Goldman, ALEYNIKOV worked on source code related to the Platform's connection to NASDAQ. At no time during his employment at Goldman was ALEYNIKOV responsible for developing or maintaining any of Goldman's trading algorithms.

10. In or about late April 2009, SERGEY ALEYNIKOV, the defendant, accepted an employment offer from Teza. Teza offered ALEYNIKOV the title of "Executive Vice President, Platform Engineering." In this position, ALEYNIKOV would be responsible for developing, along with other Teza employees, Teza's own high-frequency trading business that would compete with Goldman's business. ALEYNIKOV's last day of work in Goldman's offices was June 5, 2009.

11. At the time SERGEY ALEYNIKOV, the defendant, resigned from Goldman, his total annual compensation was approximately \$400,000. Teza offered ALEYNIKOV a substantial raise, with a total compensation package for 2009 that included an annual salary of approximately \$300,000, a guaranteed bonus of approximately \$700,000, and profit sharing units in Teza valued at approximately \$150,000.

ALEYNIKOV's Theft of Goldman's High-Frequency Trading Source Code

12. Starting at approximately 5:20 p.m. on June 5, 2009 - the last day that SERGEY ALEYNIKOV, the defendant, worked in Goldman's offices in New York, New York - ALEYNIKOV, while at his desk, executed the transfer of hundreds of thousands of lines of source code for Goldman's high-frequency trading system from Goldman's computer network, including files relating to both the Platform and the trading algorithms. In order to evade various security blocks and monitoring features placed by Goldman on its computer network to protect its proprietary systems from theft, ALEYNIKOV uploaded the source code files to an outside server in Germany. Specifically:

a. ALEYNIKOV first executed a computer program that he wrote and which was stored on his home directory in Goldman's computer network, which was titled the "backup" program. Among other things, the "backup" program contained instructions to copy hundreds of thousands of lines of source

code for Goldman's high-frequency trading system from Goldman's computer network. ALEYNIKOV designed the "backup" program to copy one of two different sets of files, depending on whether ALEYNIKOV entered an additional command as he executed the "backup" program. If ALEYNIKOV simply executed the "backup" program without entering the additional command, it would copy (i) very many of the source code files for the Platform and for some of Goldman's trading algorithms, including algorithms that determine the value of stock options and (ii) files from ALEYNIKOV's home directory, at least some of which do not contain Goldman's proprietary source code. If ALEYNIKOV entered the additional command when he executed the "backup" program, however, the "backup" program would exclusively copy source code files related to the Platform's interface with various markets, including NASDAQ. ALEYNIKOV designed the "backup" program to copy many of Goldman's proprietary source code files - including the trading algorithms that determine the value of stock options - that ALEYNIKOV never developed or maintained while employed by Goldman. Once the "backup" program copied the files, it would compress them into a single file. On June 5, 2009, ALEYNIKOV executed the "backup" program twice - once without and once with the additional command - resulting in two compressed files that together contained hundreds of thousands of lines of source code for Goldman's high-frequency trading system.

b. After ALEYNIKOV copied and compressed the source code files, he ran a different program that encrypted them, a process that made those files inaccessible to anyone who did not have the key, or password, to unlock the encryption. After encrypting the files, ALEYNIKOV transferred the files over the internet, without authorization from Goldman and in violation of Goldman's policies, to a server in Germany. This server was associated with a website (the "Website") that offered free and paid services to computer programmers who wished to store their source code projects there.

c. After transferring the source code files to the Website, ALEYNIKOV deleted the program he used to encrypt the files. ALEYNIKOV further deleted his "bash history," a feature of certain computer operating systems that records the most recent commands executed by a programmer. ALEYNIKOV's "bash history" contained a record of ALEYNIKOV's copying of the source code files, the encryption key to the files, and the transfer of the files to the Website. Thus, by deleting the "bash history," ALEYNIKOV was able to hide the fact that he copied, encrypted, and transferred proprietary Goldman files.

13. In the evening of on or about June 5, 2009, and again several days later, SERGEY ALEYNIKOV, the defendant, accessed the Website from his home in New Jersey and downloaded the source code files to his home computer. Several days later,

ALEYNIKOV copied some of these files to other home computers and to a portable flash drive (the "Flash Drive").

14. On many occasions prior to June 5, 2009, and throughout his employment at Goldman, SERGEY ALEYNIKOV, the defendant, transferred, without approval from Goldman and in violation of Goldman's policies, source code for Goldman's high-frequency trading system to his home computers, using various methods including the Website, e-mails sent from his Goldman e-mail account to his personal e-mail account, and, on at least one occasion in 2007, by copying the files onto a portable media player. For example, on the evening of on or about June 4, 2009, while logged on to Goldman's computer network remotely from his home in New Jersey, ALEYNIKOV executed the "backup" program - both with and without the additional command - and uploaded files to the Website. Accordingly, source code for Goldman's high-frequency trading system was stored on various of ALEYNIKOV's personal computers, including ALEYNIKOV's laptop computer (the "Laptop Computer"), the Flash Drive, and the portable media player. At the termination of his employment with Goldman, ALEYNIKOV did not return any of the source code for Goldman's high-frequency trading system to Goldman, in violation of his confidentiality agreement with Goldman.

15. On or about July 2, 2009, ALEYNIKOV flew to Chicago, Illinois, to attend meetings at Teza's offices.

ALEYNIKOV brought with him both the Laptop Computer and the Flash Drive, which, at that time, each contained source code for Goldman's high-frequency trading system, including some of Goldman's source code files that ALEYNIKOV copied and transferred to the Website in Germany on or about June 5, 2009.

Statutory Allegations

16. From at least in or about May 2009, up to and including on or about July 3, 2009, in the Southern District of New York and elsewhere, SERGEY ALEYNIKOV, the defendant, unlawfully, willfully, and knowingly, without authorization copied, duplicated, sketched, drew, photographed, downloaded, uploaded, altered, destroyed, photocopied, replicated, transmitted, delivered, sent, mailed, communicated, and conveyed a trade secret, as that term is defined in Title 18, United States Code, Section 1839(3), and attempted so to do, with intent to convert such trade secret, that was related to and included in a product that was produced for and placed in interstate and foreign commerce, to the economic benefit of someone other than the owner thereof, and intending and knowing that the offense would injure the owner of that trade secret, to wit, ALEYNIKOV, while in New York, New York and elsewhere, without authorization copied and transmitted to his home computer Goldman's proprietary computer source code for Goldman's high-frequency trading business, with the intent to use that source code for the

economic benefit of himself and his new employer, Teza.

(Title 18, United States Code, Sections
1832(a)(2), 1832(a)(4), & 2.)

COUNT TWO

(Transportation of Stolen Property in
Interstate and Foreign Commerce)

The Grand Jury further charges:

17. The allegations in paragraphs 1 through 15 of this Indictment are repeated and realleged as though fully set forth herein.

18. From in or about June 2009, up to and including in or about July 2009, in the Southern District of New York and elsewhere, SERGEY ALEYNIKOV, the defendant, unlawfully, willfully, and knowingly, transported, transmitted, and transferred in interstate and foreign commerce goods, wares, merchandise, securities, and money, of the value of \$5,000 and more, knowing the same to have been stolen, converted and taken by fraud, to wit, ALEYNIKOV, while in New York, New York, copied, without authorization, Goldman's proprietary computer source code for Goldman's high-frequency trading business, the value of which exceeded \$5,000, uploaded the code to a computer server in Germany, and carried that stolen code to a meeting with his new employer, Teza, in Chicago, Illinois.

(Title 18, United States Code, Sections 2314 & 2.)

COUNT THREE

(Unauthorized Computer Access and Exceeding Authorized Access)

The Grand Jury further charges:

19. The allegations of paragraphs 1 through 15 of this Indictment are repeated and realleged as though fully set forth herein.

20. In or about June 2009, in the Southern District of New York and elsewhere, SERGEY ALEYNIKOV, the defendant, unlawfully, intentionally, and knowingly, and, for purposes of commercial advantage and private financial gain, and in furtherance of a criminal and tortious act in violation of the Constitution and the laws of the United States and of any State, accessed a protected computer without authorization and exceeded authorized access, which computer was used in and affecting interstate and foreign commerce and communication, and thereby obtained information from such protected computer the value of which exceeded \$5,000, to wit, ALEYNIKOV, while in New York, New York, in violation of Goldman's policies and his confidentiality agreement with Goldman, accessed a computer server maintained by Goldman and copied Goldman's proprietary computer source code for Goldman's high-frequency trading business, the value of which exceeded \$5,000, uploaded the code to a computer server in Germany, and then downloaded it to his home computer, all with the intent to use that source code for the economic benefit of

himself and his new employer, Teza.

(Title 18, United States Code, Sections 1030(a)(2)(C),
1030(c)(2)(B)(i)-(iii) and 2.)

Tomar, Shweta
FOREPERSON

Preet Bharara
PREET BHARARA
United States Attorney

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA

- v. -

SERGEY ALEYNIKOV

Defendant.

INDICTMENT

10 Cr.

(18 U.S.C. §§ 1832, 2314, 1030 & 2)

PREET BHARARA
United States Attorney.

A TRUE BILL

James Blawie
Foreperson.

2-11-10 Filed Indictment. Case assigned to J. Cote.

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U.S.M.J